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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,828	06/23/2003	Takeo Fujimoto	29287/140	7517

7590 02/15/2007
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EXAMINER

MASKULINSKI, MICHAEL C

ART UNIT	PAPER NUMBER
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2113

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/600,828

Applicant(s)

FUJIMOTO ET AL.

Examiner

Michael C. Maskulinski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 is/are allowed.
- 6) ☒ Claim(s) 4,7,9 and 12 is/are rejected.
- 7) ☒ Claim(s) 5,6,8,10,11 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/389,857.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/23/03;8/4/06</u> . | 6) <input type="checkbox"/> Other: _____ |

Non-Final Office Action

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4, 7, 9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Beardsley et al., U.S. Patent 5,771,367.

Referring to claims 4 and 9:

- a. In Figure 2, Beardsley et al. disclose a channel connection system for connection to a host apparatus.
- b. In Figure 2, element 62, Beardsley et al. disclose a channel adapter for receiving a command from said host apparatus through said channel connection system.
- c. In Figure 2, Beardsley et al. disclose another channel connection system for connection to said host apparatus.
- d. In Figure 2, element 62, Beardsley et al. disclose another channel adapter for receiving a command from said host apparatus through said another channel connection system.
- e. In Figure 2, element 58, Beardsley et al. disclose a cache memory, connected to said channel adapter, for temporarily storing data to be sent to said host apparatus.

- f. In Figure 2, element 61, Beardsley et al. disclose another cache memory, connected to said another channel adapter, for temporarily storing data to be sent to said host apparatus.
- g. In Figure 2, element 64 and in column 4, lines 64-67 continued in column 5, lines 1-3, Beardsley et al. disclose a shared memory, connected to said channel adapter, for storing data to control said data stored in said cache memory.
- h. In Figure 2, element 64 and in column 4, lines 64-67 continued in column 5, lines 1-3, Beardsley et al. disclose another shared memory, connected to said another channel adapter, for storing data to control said data stored in said another cache memory.
- i. In Figure 2, Beardsley et al. disclose wherein said channel adapter and said shared memory are connected to each other with a first plurality of connecting means (Storage Path 0 and 1).
- j. In Figure 2, Beardsley et al. disclose said channel adapter and said another shared memory are connected to each other with a second plurality of connecting means (Storage Paths 0-3).
- k. In Figure 2, Beardsley et al. disclose said another channel adapter and said shared memory are connected to each other with a third plurality of connecting means (Storage Paths 0-3)

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- I. In Figure 2, Beardsley et al. disclose said another channel adapter and said another shared memory are connected to each other with a fourth plurality of connecting means (Storage Path 2 and 3).

Referring to claims 7 and 12:

- a. In Figure 2, elements 22 and 24, Beardsley et al. disclose a disk array for storing data.
- b. In column 4, lines 54-57, Beardsley et al. disclose that a port adapter controls transfer of data between the cache memories, the non-volatile memories, and DASD devices (and a disk adapter for transferring said data from said disk array to said cache memory).
- c. In Figure 2, Beardsley et al. disclose wherein said shared memory is also connected to said disk adapter with a plurality of connecting means (Storage Paths 0-3).

Allowable Subject Matter

3. Claims 1-3 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or reasonably suggest if a fault occurs in access from said channel adapter or said another channel adapter to said shared memory or said another shared memory of said storage apparatus accessing said shared memory or said another shared memory by use of whichever of said connecting means was not used when said fault was generated, determining a fault location from a result of the accessing step, and isolating said fault location.

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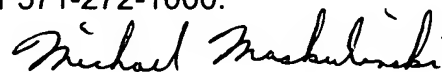
5. Claims 5, 6, 8, 10, 11, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Maskulinski whose telephone number is 571-272-3649. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on 571-272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael C Maskulinski
Examiner
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